

## CLAIMS:

1. A time-triggered communication system which comprises at least two channels (A, B) and at least a first and a second node of the "cold-start node" type, characterized in that
  - a first communication controller is assigned to the first channel (A) and a second communication controller is assigned to the second channel (B),
  - the first and the second communication controller each comprise a local clock, said local clocks being independent of each other,
  - an interface (1a, 1b) for the interchannel communication is arranged between the first communication controller and the second communication controller,
  - both communication controllers have means for generating, sending, receiving and storing a status signal ("ready", "abort"), and
  - both communication controllers (2, 6) perform the start operation only if both (2, 6) are in the "ready" status.
2. A time-triggered communication system as claimed in claim 1, characterized in that each of the two local clocks is pulsed by another oscillator.
3. A time-triggered communication system as claimed in claim 1 or 2, characterized in that both communication controllers (2, 6) comprise differently configurable means for generating a start-up timer.
4. A time-triggered communication system as claimed in any one of claims 1 through 3, characterized in that both communication controllers (2, 6) comprise means for receiving a start signal or an abort signal.
5. A time-triggered communication system as claimed in any one of claims 1 through 4 (?), characterized in that both communication controllers (2, 6) are arranged on a single chip (11), and the interface (1b) is also integrated on this chip (11).

6. A time-triggered communication system as claimed in any one of claims 1 through 4, characterized in that both communication controllers (2, 6) are arranged on a chip (9, 10) of their own, and the interface (1a) is externally arranged.

5 7. A method of carrying out a synchronous cold start in a time-triggered communication system, in particular a communication system as claimed in any one of claims 1 through 6, comprising the steps of

- generating a status signal in each communication controller (2, 6) in dependence on parameters,
- 10 - transmitting the status signal to the relevant other communication controller (2, 6) via an interface (1a, 1b),
- comparing, by each of the communication controllers (2, 6), their own state with that of the relevant other communication controller (2, 6), and
- performing a cold start if, and so long as, both communication controllers (2, 6) are in  
15 the "ready" state.

8. A method as claimed in claim 7, characterized in that a ready signal is generated if all conditions for performing the cold start exist for the cold start node in question, and an abort signal is generated if a fault occurs at the relevant cold start node.

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9. A method as claimed in claim 7 or 8, characterized in that the states are compared continuously or at least at time intervals.

10. The use of a time-triggered communication system as claimed in any one of  
25 claims 1 through 5 in a motor vehicle control.

11. A device for a time-triggered communication system which comprises at least two channels (A, B) and at least two nodes of the "cold-start node" type, characterized in that the device comprises:

- 30 - a first communication controller (2) with an independent local clock which is assigned to the first channel (A);
- a second communication controller (6) with an independent local clock which is assigned to the second channel (B);

- an interface (1a, 1b) for the interchannel communication, which is arranged between the two communication controllers (2, 6), and
- means for generating, sending, receiving and storing a status signal ("ready", "abort").

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12. A device as claimed in claim 11, characterized in that each of the two independent local clocks is pulsed by another oscillator.

13. A device as claimed in claim 11 or 12, characterized in that its two communication controllers (2, 6) comprise differently configurable means for generating a start-up timer.

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14. A device as claimed in any one of claims 11 through 13, characterized in that both communication controllers (2, 6) comprise means for receiving a start signal or an abort signal.

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15. A device as claimed in any one of claims 11 through 14, characterized in that it comprises a chip (11) on which both communication controllers (2, 6) are arranged and on which the interface (1b) is integrated.

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16. A device as claimed in any one of claims 11 through 14, characterized in that a communication controller (2, 6) is arranged in each case on a chip (9, 10) of its own and the interface (1a) is arranged externally thereto.

25 17. A device as claimed in any one of claims 11 through 16, characterized in that the device comprises:

- means for generating a status signal in each communication controller (2, 6) in dependence upon parameters;
- means for transmitting the status signal to the relevant other communication controller (2, 6) via an interface (1a, 1b);
- means for comparing the state of the two communication controllers (2, 6), and
- means for carrying out a cold start.

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18. A motor vehicle control comprising a device as claimed in any one of claims 11 through 17.
19. A program that is run by a processor and that contains instructions for  
5 implementing a method of carrying out a synchronous cold start in a time-triggered communication system, as claimed in any one of claims 7 through 9.